



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/US94/14323 <b>(22) International Filing Date:</b> 20 December 1994 (20.12.94) <b>(30) Priority Data:</b> 08/171,239                      21 December 1993 (21.12.93)      US <b>(71) Applicant:</b> MINNESOTA MINING AND MANUFACTURING COMPANY [US/US]; 3M Center, P.O. Box 33427, Saint Paul, MN 55133-3427 (US). <b>(72) Inventors:</b> OUDERKIRK, Andrew, J.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). WEBER, Michael, F.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). JONZA, James, M.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). STOVER, Carl, A.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). <b>(74) Agents:</b> JORDAN, Robert, H. et al.; Minnesota Mining and Manufacturing Company, Office of Intellectual Property Counsel, P.O. Box 33427, Saint Paul, MN 55133-3427 (US).	<b>(81) Designated States:</b> AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
<b>(54) Title:</b> MULTILAYERED OPTICAL FILM		
<p>The diagram illustrates a multilayered optical film (10) consisting of a stack of alternating layers. The layers are labeled as follows from top to bottom: PEN n = 1.88 (12), coPEN n = 1.64 (14), PEN n = 1.88 (12), coPEN n = 1.64 (14), PEN n = 1.88 (12), coPEN n = 1.64 (14), PEN n = 1.88 (12), coPEN n = 1.64 (14), and PEN n = 1.88 (12). A dashed line with arrows indicates the optical path through the layers, showing reflection at the interfaces between the PEN and coPEN layers.</p>		
<b>(57) Abstract</b>		
<p>The present invention includes a multilayered polymer film (10) comprising a body of a plurality of alternating layers (12) of a crystalline naphthalene dicarboxylic acid polyester and another selected polymer (14) wherein the layers have a thickness of less than 0.5 micrometer and wherein the crystalline naphthalene dicarboxylic acid polyester layer has a higher index of refraction associated with at least one in-plane axis adjoining layers of the selected polymer.</p>		